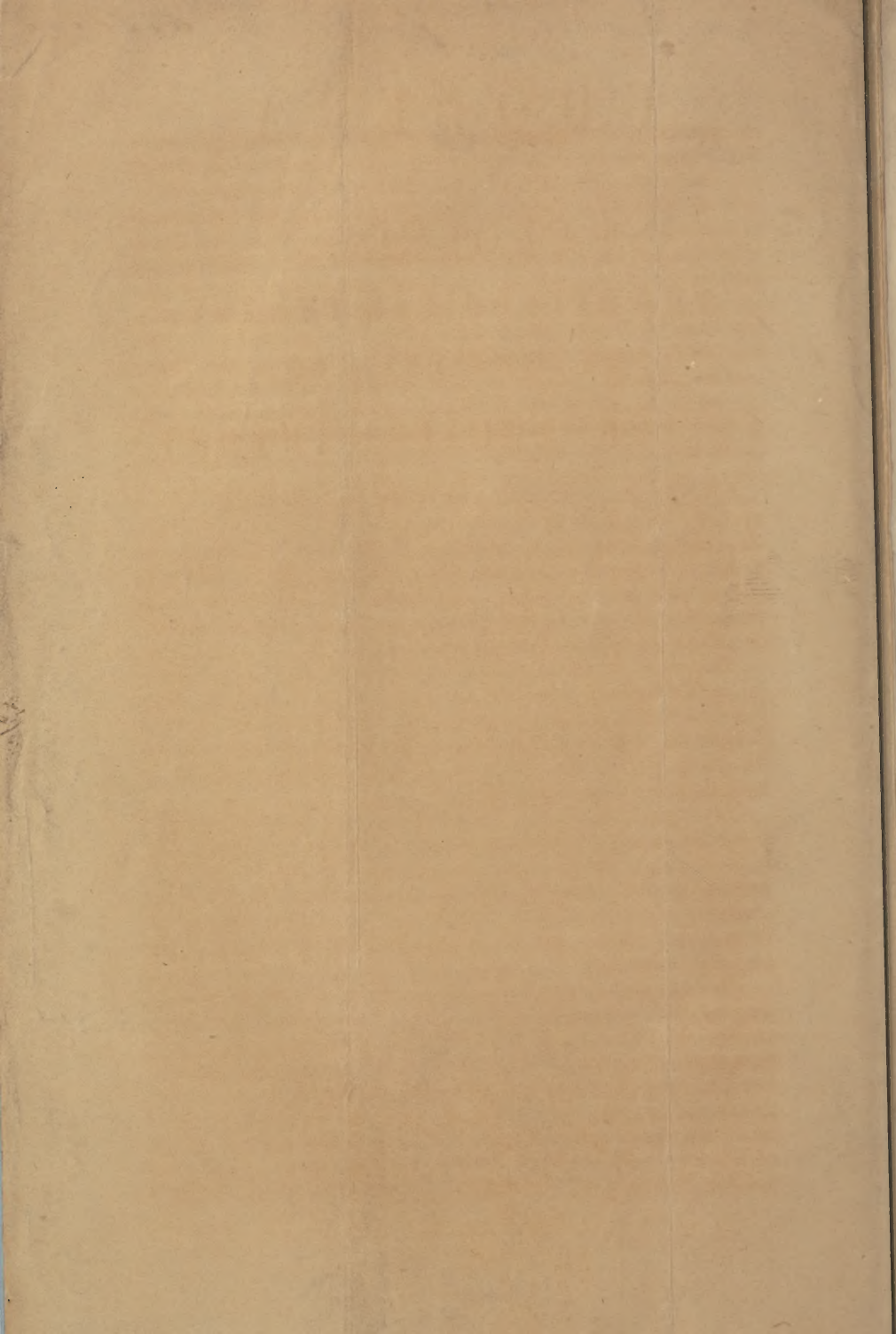


No. 3

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from the author



Lea

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CHOLERA:

THE GEOLOGICAL THEORY.

BY JOHN LEA, ESQ.

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Citizens of Cincinnati, and of the *west generally*, have a special interest in all discussions and investigations touching the *origin, nature, and progress of* CHOLERA; and it appears to me to be the duty of *every one*, who has it in his power to correct mis-conceptions and mis-statements, or to adduce new facts, through that medium which he thinks may prove most beneficial to afflicted humanity.

The report of the committee on epidemics, of the "American Medical Association" (which met at this city in May last), on this very interesting subject, does not appear to have thrown any *new* light thereon, or adduced any new or remarkable *facts* in relation thereunto, ("upon which no one sheds new light." Report, p. 106.)

On page 129, of the *Transactions*, the committee says: "we believe that cholera is portable, but not contagious, that it is dependent for its accidental power rather upon density of population and personal uncleanness, than upon any other causes. An atmosphere highly charged with emanations from living bodies, seems to be the chief stimulant of the choleric influence."

This opinion of the committee is the more remarkable, as on page 125 (same report) they say:—"In a healthy district, twenty-six miles from Philadelphia, resided a respectable farmer, I. Sloanaker; about three-eighths of a mile from him lived his son, M. Sloanaker, who had charge of and cultivated the farm;" it goes on to state, that the two families consisted of fifteen persons, of all ages, from seven to sixty-five years, of whom eleven took the disease and five died. Here was neither "density of population, or uncleanness," being a



"healthy district, and respectable farmers;" the discrepancy therefore, in these, statements is certainly very surprising.

The committee would have had no difficulty when *here*, in tracing the epidemic in its most malignant character, to the *healthiest locations* in and near the city, amongst respectable families, on high and dry situations, on the beautiful hills near the city, and on the hill sides, overlooking it; in several instances, not an individual left—all gone—swept out of existence in a few hours! Now mark the contrast! on "sausage row" (near the river) I am informed that not one died, and very few died along shore, except strangers; (boatmen\*) the same was the case at St. Louis—in their *sausage rows*, no deaths occurred. These facts are likewise greatly at variance with the *report* of the *sanitary committee* of Philadelphia, in 1848, wherein they say, that, "low damp situations, rich alluvial soils, *wharves, banks of rivers*, and streams, imperfect ventilation, &c. all tend in a special manner to promote the prevalence of Cholera." This is altogether at variance with our experience *here*, and throughout the country. Sandusky, Newhope, and many other towns as *clean* as any in the state, were attacked with a perfect ferocity by the cholera; while others, not at all remarkable for cleanliness, escaped.

The committee on epidemics appears to attach much importance to the case reported by Dr. S. Hanbury Smith, as follows:—"In a frame building at the corner of Plum and William street, there lived about 33 persons. Of these, eight boarders occupied four of the largest rooms, sleeping only two in each room, but the other small rooms were occupied by whole families for every domestic purpose, from five to eight persons residing in each room. Of the twenty-five persons who were thus crowded together in the small rooms, twenty-three died of cholera, whilst of the eight who slept in the larger rooms, not one was attacked by that disease, although they assisted in nursing those who were sick." The Doctor appears to have been misinformed in almost every particular,—I will explain as I had it from the owner of the house and her family to day (14 Jan.) There are sixteen rooms in the house:—

Three rooms were occupied by the family of the owner of

\* Those flatboatmen in several cases, *I know*, were from the sand-stone regions, about 100 miles up the river; and the *change of water* they had been accustomed to, to that of even the river, (low at the time) may have operated fatally, by giving effect to an atmosphere charged with the miasm of cholera.

the property, consisting of -	-	-	6 persons	2 died.*
Say room No. 1,	"	"	5	0
" " 2,	"	"	4	2
" " 3,	"	"	3	1
" " 4,	"	"	4	2
" " 5,	"	"	3	0
" " 6,	"	"	2	0
" " 7,	"	"	5	1
" " 8,	"	"	5	4
" " 9,	"	"	5	5
" " 10,	"	"	11†	3
" " 11,	"	"	2	2
" " 12,	"	"	2	1
" " 13,	"	"	5‡	0
			62	23

Of those twenty-three deaths, ten are said to have been babies; "nine of which died of summer complaint, and one died of cholera." The "eight boarders," were in the room number ten, for *board*, but slept in the garret; one of whom took the cholera and died; the rest took flight, and went to the country. The owner of the house died, and left a widow and three children, now living on the premises. She said they had heard that the well water was bad for them, but one Doctor said, "drink as much as you want, it can't hurt you." She likewise said, that she "saw much white stuff stick to the kettle, that the water was boiled in."

The committee might have found cases much more remarkable than the foregoing, at the northern end of Sycamore street, and elsewhere.

Many (even entire families) have been led to destruction, by taking advice, which, however well intended, proved most disastrous. They were advised to *seek safety in high and dry situations, well ventilated, no ponds nor swamps near!* they did so, and by *so doing*, were led to use the calcareo-magnesian water of the wells and springs; there are none amongst us, I presume, who do not know cases in point. Had those who removed from locations in the city, where they were supplied with *river* or *rain* water staid at home, the chances would have been one thousand to one in their favor. A most lamentable case in this category, occurred to

\* One died of old age.

† Eight removed.

‡ All removed.



a gentleman's family which arrived here from Baltimore in 1849; he took a house on Sycamore street, hill-side, that looks down upon the entire city; here he was led to believe that he might repose in safety during the prevalence of cholera, but unfortunately his family used the spring water, and seven died! Six (the entire family) died in the house adjoining on one side, and three in the one adjoining on the other side, all from the same cause, while the family adjoining the latter, past through the season unscathed; the use of any other than rain water being *strictly prohibited*. The others refused the advice which the latter profited by, they all had cisterns, but preferred the spring water on account of its coolness.

The rare occurrence of deaths by cholera amongst children is mentioned in the "report." They do not appear to enjoy that immunity *here*. On Reed's alley, at a house where five died last summer, they *were all children*, under fourteen years of age, and it frequently happened that entire families (including children) were cut off. The "report" states, as a remarkable fact, that twenty-three cases of cholera at Philadelphia succeeded each other, at considerable distance, (perhaps two to four miles) it is quite probable they could be traced to the *use of well water*, or cathartics injudiciously administered in a choleraic atmosphere.

It appears by the same "report," (p. 114) that out of one hundred cases, eighty-eight died under saline treatment. That the propagation of cholera in any city is owing to the quality of the water used therein, there is no room to doubt: wherever rain water is used *exclusively*, that disease never prevails epidemically, and where the supply by springs is free from calcareo-magnesian elements, a like immunity will be enjoyed; thus in the arenacious regions of Saxony and Prussia, I believe the population has not at any time suffered. Halle suffered severely, while Leipsic, but a few miles distant, was very slightly affected, yet the former is more favorably situated *as a healthy location*, the cause of this difference *will be found* to exist in the *quality of water*, used in the respective cities. The most malarial districts are quite as exempt from cholera as any others, when the use of rain water is adhered to: thus Charleston, S. C. (where they are obliged to depend upon rain water) though located in remarkably unhealthy region, experiences immunity from cholera, and the *general health* of its inhabitants is better than that of those of New Orleans, where their principal dependence is on the water of the Mississippi.

I would ask those who think that there are other exciting causes equal to that of calcareo-magnesian water, (as unripe fruit, and crude vegetables) how it is that those irritants have no effect whatever in such regions, as the primary formations generally, of New England, West Tennessee, Mobile, Charleston, and the sea board generally, of the southern states; in those regions they have no occasion to make *any change* in their usual diet; the choleraic atmosphere passes over them, and finds no stimulant to nourish its venom; it does not become epidemic.

After such an array of facts, as has been now and *heretofore*, adduced, will it be said—"there is no new light!" I have not been able to find one well attested case of death by cholera, of an individual who had adhered rigidly to the use of rain water; if such have occurred, the cases are so *very few*, that the *exceptions prove the rule*, and it will *certainly be found*, by those who may take the trouble to investigate it, that rain water (and probably calcareo-magnesian water, which has been boiled) is a *surer prophylactic* against cholera, than *vaccination is against small-pox*! Prevention—always better than cure—is most especially so in respect to the most malignant of all diseases that ever afflicted the human family—one that counts its victims by millions!







